GLOSSARY

A-Weighted Sound Level - Sound that is measured with a sound-level meter using the A-weighted response filter that is built into the meter circuitry. The A-weighted filter simulates the frequency response to the human ear.

Anadromous - Ascending from the sea into rivers for breeding.

Anticlines - An arch of stratified rock in which the layers are folded upwards.

Bathymetric - A measure of underwater depths.

Borough - A civil division in the State of Alaska corresponding to a county in most other states.

Bus (electrical) - A conductor or assembly of conductors for collecting electric currents and distributing them to outgoing feeders.

Capacity - The rated continuous load-carrying ability, expressed in MW or megavolt-amperes (MVA) of generation, transmission, or other electrical equipment.

Circuit - A complete closed conducting path over which electric current may flow.

Colluvial - Soil and rock detritus accumulated at the bottom of a slope.

Conductor - A material, usually in the form of a wire or cable, suitable for carrying an electric current.

Contrast - The effect of a striking visual difference in the form, line, or texture of an area being viewed.

Corona Activity - Electrical interference and noise resulting from the partial electrical breakdown of the air next to energized conductors. Occurs when the voltage gradient surrounding the conductors or hardware exceeds the breakdown strength of the air, resulting in electrical discharge at the conductor surface.

Corridor - A continuous trace of land of defined width through which a utility route passes.

Cultural Resources - Any site or artifact associated with cultural activities.

Cumulative Impact - Effects that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

Direct Impact - Effects that are caused by the action (i.e., construction) and occur at the same time and place (see Indirect Impact).

Duct Bank - Containment system for underground transmission lines.

Economy Energy - Energy produced and supplied from a more economical source in one system and substituted for that being produced or capable of being produced by a less economical source in another system.

Electric Field - Electric effect resulting from the voltage on a transmission line. Measured as volts per meter (V/m) or kilovolts per meter (kV/m).

Electric System Losses - Total electric energy losses in an electric system as a result of transmission, transformation, and distribution. Electric energy is lost primarily due to heating of transmission and distribution elements.

Electromagnetic Field (EMF) - A space or region within which magnetic forces are present around an electrical current.

Emergent (vegetation) - Aquatic plants which project above the surface of the water.

Endangered Species - Any species in danger of extinction throughout all or a significant portion of its range. Federally endangered species are protected by the Endangered Species Act of 1973, as amended.

Estuarine - Saltmarsh habitats that occur typically at low-lying coastal area, such as mouths of river systems or tidal areas.

Ethnography - That aspect of cultural and social anthropology devoted to the first-hand description of particular cultures.

Fault - A fracture or fracture zone in the earth's surface layers along which there has been displacement of the sides relative to one another parallel to the fracture.

Forest Edge Effect - The forest "edge" is the zone where different plant and animal communities and successional stages meet. Widening of the right-of-way would increase the "edge effect" by further changing the composition of the biotic communities.

Frost Heave - An upthrust of ground or pavement caused by freezing on moist soil.

Frost Jacking - Upward displacement of pilings or other buried structures as a result of frost heaving.

Fuel Cells - Power generating systems that produce DC electricity by combining hydrogen and oxygen in an electrochemical reaction. Compared with traditional generating technologies that use combustion processes first to convert fuel to heat and mechanical energy, fuel cells convert the chemical energy of a fuel to electric energy directly.

Gauss - Measurement of the magnetic flux intensity (intensity of magnetic field attraction per unit area).

General Mitigation - Mitigation measures or techniques to which the Project has made a commitment on a non-specific basis.

Habitat Fragmentation - A reduction in area of undisturbed, continuous habitat. Often affects interior forest species that depend on unbroken expanses of mature coniferous forest.

Hydrothermal Coordination - The operation of hydro and thermal generation resources in a way that results in overall lower system operating costs.

Indirect Impact - Effects that are caused by the action and occur later in time or are farther removed, but are still reasonably foreseeable (see Direct Impact).

Lacustrine - Lakes and ponds more than 2 acres in surface area.

Lithic Flakes - Stone chips and flakes resulting from preparation of stone tools.

Load Shedding - The process of deliberately removing, either manually or automatically, preselected loads from a power system in response to an abnormal condition in order to maintain the integrity of the system and minimize overall outages.

Magnetic Field - Electric effect resulting from an electric current flowing in a conductor. Unit of measurement is a Gauss.

Mitigation - A means to alleviate or render less intense or severe.

Moment Magnitude – A number that indicates the strength of an earthquake. It is related to the energy released during the earthquake.

Muskegs - Bog dominated by sphagnum moss.

Paleontology - The science that deals with the life of past geological ages through the study of the fossil remains of organisms.

Permafrost - Permanently frozen layer of soil.

Power Transfer Capacity - The measure of the ability of interconnected electrical systems to move or transfer power in a reliable manner from one area to another. The units of transfer capability are generally expresses in MW.

Reactive Compensation - Provides transmission system voltage stability and facilitates power transfers. Reactive compensation is provided by reactors and capacitors located within substations or transition stations.

Refuse Midden - An archeological site containing a refuse or trash pile.

Residual Impact - The adverse impact of an action remaining after application of all mitigation measures.

Right-of-Way - Strip of land over which the transmission line, access road, and maintenance road will pass.

Ring Bus - An substation arrangement of circuits and breakers whereby each breaker is shared by two circuits; therefore, two breakers must open to clear each line fault.

Riverine - Relating to, or within the limits of river or stream channels.

Scenery Management System - A U.S. Forest Service methodology system used to describe and analyze impacts to visual quality.

Scenic Quality Classes - Class A, lands of outstanding or distinctive scenic quality; Class B, typical scenic quality; and Class C, undistinctive scenic quality.

Secure Power Transfer - The maximum power transfer permissible for the system to remain stable and operational with a sudden loss of the transferred power.

Seiches - Oscillations of the surface of a lake or landlocked sea that varies in period from a few minutes to several hours. Analogous to tsunamis in marine environments.

Seismicity - The likelihood of an area being subject to earthquakes. The phenomenon of earth movements.

Selective Mitigation - Mitigation measures or techniques to which the Project has made commitments on a case-by-case basis after impacts were identified and assessed.

Significant (impacts) - Term used to describe any impact that would cause a substantial adverse change or stress to one or more environmental resources.

Spinning Reserves - A portion of the operating power reserves that are maintained by utility companies in order to maintain consistent energy supply in response to consumer demand and failures of the generation and transmission system. Spinning reserves are unloaded generation, which is synchronized and ready to serve additional demand. Spinning reserves improve reliability but are expensive to maintain.

Static Lines - Small diameter wires that are placed above the phase wires on a transmission line to intercept lightning.

Subsidence (soil) - The sinking of the earth's surface because of the withdrawal of water or mineral resources.

Subsistence - The customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; and for customary trade, as defined in Section 803 of ANICLA.

Substation - A facility in an electrical transmission system with the capability to route and control electrical power, and to transform power to a higher or lower voltage.

System Stability - That property of a power system that enables it to remain in a state of operating equilibrium under normal operating conditions and to regain an acceptable state of equilibrium after being subjected to a disturbance.

Threatened Species - Any species likely to become endangered within the foreseeable future throughout all or a significant part of its range. Federally threatened species are protected by the Endangered Species Act of 1973, as amended.

Tidal Bore - A solitary, tidally generated wave that typically moves up a slowly moving estuary with the incoming tide.

Transition Site - Facility that changes transmission line from overhead to underground or to a submarine cable.

Viewshed - The visible portion of the landscape seen from a viewpoint or viewing area.

Wetlands - Those areas that are inundated by surface or groundwater with a frequency sufficient to support vegetative life that requires saturated or seasonally saturated soil conditions.